Key Concepts in Using Advanced Techniques to Enhance Web Pages Session 1

Session: Using Advanced Techniques to Enhance Web Pages

Question Discussion

➢ Importance of designing a form using form controls within HTML tags.

_____

_____

_____

_____

_____

_____

Features of HTML Form

• An HTML form can contain text fields, checkboxes, radio buttons, password fields and buttons, submit buttons, etc.

• These controls help the user to enter data

• The <form> tag is used to add HTML forms to the web page for user input

• When a user clicks on the submit button, the data such as name, mobile no., mail address, etc., are sent to the server

• If there is no submit button, the 'Enter' key is used to send the data to the server

_____

_____

_____

_____

_____

_____

Basic Steps to Create HTML Form

• To create an HTML form, use <form> tag

• There are many attributes defined in a <form> tag

• The <form> tag comes in pairs

• The opening tag is <form> and the closing tag is </form>

• The content is written between the opening (<form>) and closing (</form>) tags

• The form tag is written in the body tag

```
<html>
  <head>
    <title>Form in HTML</title>
```

```
        </head>
         <body>
             <h2>Login Form</h2>
           <form>
     <fieldset>
              <legend>User Login Information</legend>
              <label>Enter your username</label><br>
              <input type="text" name="name"><br>
               <label>Enter your email</label><br>
               <input type="email" name="emailid"><br>
     </fieldset>
     </form>
          </body>
     </html>
```

➢ The form name defines a unique name of the form

➢ The syntax is <form name="*text*">

➢ In this example, it is <form name="Formname">

➢ It is called the name attribute

➢ Similarly, the other two attributes are action and method attributes

Syntax:

<form name= "Formname" action="server url" method="get|post" target="_blank">

  //input elements e.g. textfield, textarea, radiobutton, button

</form>

_____

_____

_____

_____

_____

HTML Form Elements/Controls

1. Text Input Controls

2. Checkboxes Controls

3. Radio Box Controls

4. Select Box Controls

5. File Select Boxes

6. Hidden Controls

7. Clickable Buttons

8. Submit and Reset Buttons

_____

_____

_____

_____

Different HTML Form Elements and Type Attributes

- **type attribute**

  o The type attribute defines the type of the <input> element

  o The default type is "text". If no type attribute is specified then "text" is taken

  o The syntax is on the screen

  o In this programme example, the type is mentioned as "text"

- **name attribute**

  o The name attribute gives name to the input control. This is sent to the server to be recognised

  <html>

  <head>

  <title>Text Input Control</title>

  </head>

  <body>

  <form >

  First name: <input type = "text" name = "firstname" />

  **
**

  Last name: <input type = "text" name = "lastname" />

  </form>

  </body>

  </html>

_____

_____

_____

_____

_____

_____

Other type attributes and values

➢ **Button:** defines a clickable button

   ○ Syntax: <input type="button" value="submit">

➢ **Checkbox:** defines a checkbox

   ○ Syntax: <input type="checkbox" id="vehicle" name="vehicle" value="car">

➢ **Colour:** defines a colour picker

   ○ Syntax: <input type="color" id="color" name="favcolor">

➢ **Date:** defines a date control - year, month and day

   Syntax: <input type="date" id="birthday" name="birthday">

➢ **Datetime local**: defines a date and time control - year, month, day and time (no time zone)

 Syntax: <input type="datetime-local" id="birthdaytime" name="birthdaytime">

➢ **Email:** defines a field for an e-mail address.

 Syntax: <input type="email" id="email" name="email">

➢ **File**: defines a file-select field and a "Browse" button (for file uploads)

 Syntax: <input type="file" id="filename" name="filename">

➢ **Hidden**: defines the hidden input field

 Syntax: <input type="hidden" id="custId" name="custId" value="3487">

➢ **Image:** defines an image as the submit button

 Syntax: <input type="image" src="img_submit.jpg" alt="Submit">

➢ **Month:** defines a month and year control (no time zone)

 Syntax: <input type="month" id="month" name="birthdaymonth">

➢ **Number:** defines a field for entering a number

 Syntax: <input type="number" id="quantity" name="quantity" >

➢ **Password:** defines a password field

   Syntax: <input type="password" id="pwd" name="pwd">

➢ **Radio:** defines a radio button

   Syntax: <input type="radio" id="male" name="gender" value="male">

➢ **Range:** defines a range control, like a slider control

   Syntax: <input type="range" id="vol" name="vol" min="0" max="50">

➢ **Reset:** defines a reset button

Syntax: <input type="reset">

➢ **Search:** defines a text field for entering a search string

Syntax: <input type="search" id="gsearch" name="gsearch">

➢ **Submit:** defines a submit button

Syntax: <input type="submit">

➢ **Tel:** defines a field for entering a telephone number. Here, we can set the validation to accept only numbers

Syntax: <input type="tel" id="phone" name="phone" pattern="[0-9]{3}-[0-9]{2}-[0-9]{3}">

➢ **Time:** defines a control for entering a time, but no time zone

Syntax: <input type="time" id="appt" name="appt">

➢ **URL:** defines a field for entering a URL

Syntax: <input type="url" id="homepage" name="homepage">

➢ **Week:** defines a week and year control

Syntax: <input type="week" id="week" name="week">

➢ **Value:** the value attribute is used to specify the value of the input element

➢ **Alt:** the alt attribute gives an alternate text for the user if the image is not displayed

➢ **Maxlength:** this is used to specify the maximum number of characters allowed in an <input> element

➢ **Size:** this property is used to specify the width, in characters, of an <input> element

➢ **Src:** this property is used to specify the URL of the image

➢ **Checked:** the checked attribute specifies that an element should be pre-selected (checked) when the page loads. The checked attribute can be used with the checkbox and the radio button

➢ **Max:** the max attribute is used to specify the maximum value for an < input > element

➢ **Min:** this is used to specify a minimum value for an <input> element

➢ **Multiple:** this attribute defines that a user can enter more than one value in an input element

➢ **Pattern**: this attribute defines a regular expression that an <input> element's value is checked against

_____

_____

_____

_____

_____

_____

_____

_____

Example

Syntax for password input control:

❑ The syntax to set the password field is, type "password" in the input field

<form >

     User ID: <input type = "text" name = "userid" />

     Password: <input type = "password" name = "pwd" />

  </form>

Syntax for text area input control:

❑ The syntax to apply the text area is, type the <textarea> tag with name, rows and cols attributes

<form>

   Description:

  <textarea rows = "4" cols = "40" name = "desp">

    Enter description here...

</textarea>

</form>

Syntax for <label> element:

❑ The <label> element is useful for screen-reader users

❑ It is considered better to have a label in a form as it makes the code user-friendly

❑ If you click on the label tag, it will focus on the text control

<form>

  <label for="firstname">First Name: </label>

  <input type="text" id="firstname" name="firstname"/>

   <label for="lastname">Last Name: </label>

     <input type="text" id="lastname" name="lastname"/>

 </form>

Syntax for radio button control:

❑ The radio buttons are used when out of many options, just one option is required to be selected

❑ It is used in the selection of genders, multiple choice questions, etc.

```
<form>

        <input type = "radio" name = "subject" value = "maths"> Maths

        <input type = "radio" name = "subject" value = "physics"> Physics

    </form>
```

Syntax for checkbox control:

❑ When a user clicks on the checkbox, it means you are setting the checkbox to true

❑ If the checkbox is unchecked then it is set to false.

❑ The attributes are type, name, value and checked

```
<form>

        <input type = "checkbox" name = "math" value = "on"> Maths

        <input type = "checkbox" name = "physics" value = "on"> Physics

    </form>
```

Syntax for select box control and <option> tag:

• **<select>**

❑ The <select> element or control defines a drop-down list

❑ It provides an option to list down various options in the form of a drop-down list, from where a user can select one option among multiple options

• **<option>**

❑ The <option> tags inside the <select> element define the available options in the drop-down list

❑ The drop-down list should have at least one <option> element

```
  <form>

<select name = "dropdown">

            <option value = "Maths" selected>Maths</option>

            <option value = "Physics">Physics</option>

    <option value = "chemistry">chemistry</option>

    <option value = "english">english</option>

        </select>

    </form>
```

Syntax for value attribute with <option tag> for visible values and allowing multiple selection:

• Visible values

❑ The size attribute is used to make the options visible in the select tag

```
<form>

<label for="car">Choose a car:</label>
```

```
<select id="car" name="car" size="3">

   <option value="volv">Volvo</option>

   <option value="sab">Saab</option>

   <option value="fiat">Fiat</option>

   <option value="audi">Audi</option>

</select>

</form>
```

- **• Allowing multiple selection**

❑ The select tag allows a user to select more than one value using multiple attributes

```
<form>

<label for="cars">Choose a car:</label>

<select id="cars" name="cars" size="4" multiple>

   <option value="volvo">Volvo</option>

   <option value="saab">Saab</option>

   <option value="fiat">Fiat</option>

   <option value="audi">Audi</option>

</select>

</form>
```

Syntax for file upload box:

❑ A file input is used to allow users to upload images or files

❑ This is also created using the <input> element but the type attribute is set to **file**

❑ The attributes are name and accept

```
<form>

        <input type = "file" name = "upload" accept = "image/*" />

    </form>
```

Syntax for button controls with <input> tag using submit and reset attributes:

❑ In HTML, there are many ways to create clickable buttons

❑ Use the <input> tag to create a clickable button by setting its type to **button**

❑ The attributes are submit and reset

```
<form>

        <input type = "submit" name = "submit" value = "Submit" />

        <input type = "reset" name = "reset" value = "Reset" />
```

</form>

Syntax for button controls with <input> tag using button and image attributes:

❑ This creates a button that is used to trigger a client-side script when the user clicks that button

❑ **image:**

▪ This creates a clickable button but we can use an image as background of the button

▪ The src attribute specifies the URL of the image to use as the submit button

<form>

        <input type = "button" name = "ok" value = "OK" />

        <input type = "image" name = "imagebutton" src = "C:\Users\Public\Pictures\Sample Pictures\abc.jpg" alt="Submit" width="48" height="48"/>

        </form>

Syntax for hidden form controls:

❑ The hidden form controls are used to hide data inside the page, which can be pushed later to the server. This control hides inside the code. The code does not appear on the actual page

❑ A hidden form is being used to keep the current page number

<form>

        <p>This is page 10</p>

        <input type = "hidden" name = "pagename" value = "10" />

        <input type = "submit" name = "submit" value = "Submit" />

        <input type = "reset" name = "reset" value = "Reset" />

        </form>

Syntax for <fieldset> and <legend> tag:

❑ The HTML <fieldset> tag is used for grouping related form elements.

❑ The <legend> element must be the first child of the <fieldset > element

❑ The attributes are disabled, name and align

<fieldset>

    <legend>Personalia:</legend>

    <label for="fname">First name:</label>

    <input type="text" id="fname" name="fname">

   <label for="lname">Last name:</label>

    <input type="text" id="lname" name="lname">

</fieldset>

Syntax for <optgroup> tag:

❑ The <optgroup> tag is used for grouping-related options within your select list. It is used when there are a large number of list items. It makes it easier for users to comprehend their choices when looking at a huge list

<form>

  <label for="cars">Choose a car:</label>

<select name="cars" id="cars">

  <optgroup label="Swedish Cars">

    <option value="volvo">Volvo</option>

    <option value="saab">Saab</option>

  </optgroup>

 <optgroup label="German Cars">

    <option value="mercedes">Mercedes</option>

    <option value="audi">Audi</option>

  </optgroup>

</select>

</form>

Activity:

• What is the purpose of the <select> tag?

• What is the use of multiple selection?

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

How to apply background image?

Syntax: <body background="img_girl.jpg">

JavaTpoint

Html Tutorial

In HTML, we can change the colour of the background of a webpage using the following ways:

  Using bgcolour attribute

</body>

How to apply all types of font sizes?

Syntax: <body>

        HTML Font Tag

         HTML Font Tag

         HTML Font Tag

         HTML Font Tag

         HTML Font Tag

         HTML Font Tag

         HTML Font Tag

    </body>

How to apply all types of font types or faces?

Syntax: <body>

                HTML Font Types

                HTML Font Types

                HTML Font Types

                HTML Font Types

                HTML Font Types

    </body>

How to apply font colour?

Syntax: <body>

         HTML code for Font Color

         HTML code for Font Color

    </body>

How to apply special characters?

Syntax: <body bgcolor="#F0F0F0">

<p> This is sample paragraph for displaying the special characters </p>

        <hr>

An example of a CopyrightSymbol ©

An example of a Trademark symbol ™

An example of a Registered Trademark symbol ®

    </body>

_____

_____

_____

_____

_____

_____

_____

Activity

- What is the Hex code of lighter black in HTML?

- What is an attribute?

- What will be the syntax in HTML to set a text in green colour?

_____

_____

_____

_____

_____

_____

_____